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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/646,812

09/22/2000

Koen Muyswinkel

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01/30/2004

Morrison & Foerster LLP
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McLean, VA 22102

EXAMINER

NGUYEN, THUAN T

ART UNIT

PAPER NUMBER

2685

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

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Commissioner of Patents and Trademarks

See Attachments

Office Action Summary

Application No.

09/646,812

Applicant(s)

MUYSEWINKEL ET AL.

Examiner

THUAN T. NGUYEN

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2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 8-12, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Youssefzadeh et al. (U.S. Patent No. 6,198,921 B1/ or "Youssef" hereinafter for short).

Regarding claim 1, Youssef discloses a method for connection control in a radio communications system during calls from and to radio subscribers (Fig. 2 as mobile subscribers 12 makes calls to each other via base stations 26 and mobile switching centers MSC 27 between cells or within a cell, and col. 3/line 50 to col. 4/line 14), said radio communication system comprising, a radio subsystem via which communications terminals which allow access by said radio subscribers can be connected in an associated radio area, and a switching center for switching through connections, comprising the steps of routing said connections between said

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radio subsystem switching center via a radio transmission unit, i.e., call routing allowing MSC 27 switches calls within a cell or to different cells via a transmission unit 42 (Fig. 2), said step of routing comprising:

switching through, for a case of a call within a radio area between radio subscribers within a same said radio area or for a case of a call between radio subscribers in different radio areas only **signaling connections** from said radio transmission unit to said switching center, i.e., signaling connection links 44 are used for connecting signaling and data via transmission unit 42 between MSC 27 (see Fig. 2, and col. 10/lines 10-26);

switching **traffic channel connections** by said radio transmission unit between a first radio subsystem and a second radio subsystem for a case of a call within a radio area from said radio subsystem itself, or for a case of a call between radio subscribers in different radio areas, i.e., traffic channel links 46 is set up and connected between radio subsystems 22 and to subsystem 30, 50 & 60, see col. 10/lines 10-32).

As for claim 2, in view of claim 1, Youssef further discloses “comprising the step of switching through only said signaling connections for a case of a call which relates to a radio subscriber and a subscriber of another communications system, only the signaling connections from said radio transmission unit to said switching center, and switching said traffic channel connections between said radio communications system and said other communications system by said radio transmission unit”, i.e., Youssef clearly discloses that more than one system is shown in Figure 2 including a PSTN network system, Earth station network system and mobile

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communication network system, and the radio communication unit only switches signaling links between different systems using MSC 27 or switching centers 32, 52 & 60 and traffic channel links 46 are directly connected between radio communication systems under the control of satellite backbone network having a radio transmission unit 42 (col. 3/line 50 to col. 4/line 14 & col. 4/line 59 to col. 5/line 14).

As for claim 3, in view of claim 1, Youssef further discloses “comprising the step of sending back control information from said switching center via a switched-through signaling connection, said radio subsystem or said radio transmission unit initiating said switching of traffic channel connections utilizing said control information”, i.e., control information can be sent in two-way interaction via a switched-through signaling connection network 40 (satellite backbone) and either radio subsystems 20 or radio transmission unit 42 can initiate the switching of traffic channel links using the control information such as for call set up information for allowing a call connection (col. 10/lines 10-32) under the control of a centralized network management center (col. 15/line 53 to col. 16/line 6).

As for claim 4, in view of claim 3, Youssef further discloses “comprising the step of sending an identifier to identify trunks which are in each case used for a call in said switching center back from said switching center via a switched-through signaling connection, said radio subsystem checking, utilizing said identifier, for a presence of a call within a radio area, and causing said switching of said traffic channel connections”, i.e., subscribers with their unique identification address served as an identifier for the system to set up call information, by checking

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against a home location register 23 and a visitor location register 24 for call management and call connections as in the previous step (col. 9/lines 52-62 & col. 10/lines 10-32 for traffic channel connections addressed).

As for claim 5, in view of claim 1, Youssef further discloses “comprising the step of transmitting voice signals on said traffic channel connections”, i.e., traffic channel 46 carries voice signals (col. 9/lines 17-28).

As for claim 6, in further view of claim 1, Youssef discloses “wherein a satellite is used as said radio transmission unit”, i.e., radio transmission unit 42 is a satellite (Fig. 2, and col. 9/lines 10-28).

As for claim 8, in view of claim 1, Youssef further discloses “comprising the step of: controlling said switching of said signaling connections and of said traffic channel connections in said respective radio subsystem by an interworking unit with a through-switching capability”, i.e., interworking function is provided for protocol translation in networks as switching between cells and PSTN network with a through-switching capability of satellite backbone 40 (Fig. 2, and col. 5/line 50 to col. 6/line 22).

As for claim 9, in view of claim 1, Youssef further discloses “comprising the step of controlling said switching of said signaling connections to said switching center by an interworking unit with a through-switching capability”, i.e., network management center using interworking function for providing protocol translation in networks as switching between cells

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and PSTN network to include the switching center 27 (col. 9/lines 50 to col. 10/line 55) with a through-switching capability of satellite backbone 40 (Fig. 2, and col. 5/line 50 to col. 6/line 22).

Regarding claim 10, Youssef discloses a radio communications system for connection control during calls from and to radio subscribers (Fig. 2 as mobile subscribers 12 makes calls to each other via base stations 26 and mobile switching centers MSC 27 between cells or within a cell, and col. 3/line 50 to col. 4/line 14), comprising: communication terminals (Fig. 2/items 12); a radio subsystem via which said communications terminals which allow access by the radio subscribers can be connected in an associated radio area (Fig. 2/item 20 for a cell in an associated area to a subscriber 12); a switching center for switching through connections (Fig. 2/item 27 for MSC, col. 9/lines 50-65)); a radio transmission unit (Fig. 2/item 42) which is arranged between said radio subsystem and said switching center and via which said connections are routed, said routing being implemented so that when a call within a radio area between radio subscribers within a same radio area, or when a call between radio subscribers in different radio areas are made, only signaling connections are switched through from said radio transmission unit to said switching center, i.e., signaling connection links 44 are used for connecting signaling and data via transmission unit 42 between MSC 27 (see Fig. 2, and col. 10/lines 10-26);

and said routing being implemented so that traffic channel connections are switched by said radio transmission unit between a first radio subsystem and a second radio subsystem when a call is made within a radio area from said first radio subsystem or when a call is made between

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radio subscribers in different radio areas, i.e., traffic channel links 46 is set up and connected between radio subsystems 22 and to subsystem 30, 50 & 60, see col. 10/lines 10-32).

As for claim 11, in view of claim 10, Youssef discloses “wherein said radio transmission unit is a satellite”, i.e., radio transmission unit 42 is a satellite (Fig. 2, and col. 9/lines 10-28).

As for claim 12, in view of claim 10, Youssef further discloses “comprising an interworking unit controlling said switching of said signaling connections and of said traffic channel connections in a respective said radio subsystem”, i.e., interworking function being part of network management is provided for protocol translation in radio subsystem networks as switching between radio subsystem cells and PSTN network (Fig. 2, and col. 5/line 50 to col. 6/line 22).

As for claim 14, in view of claim 10, Youssef further comprising “an interworking unit for controlling switching of said connections in said switching center”, i.e., each cell has a cell switching control function including a switching center (col. 6/lines 9-40).

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Youssefzadeh et al (U.S. Patent No. 6,198,921 B1) in view of Friman (WO 95/24789).

Regarding claims 7 and 13, in view of claims 1 and 10, Youssef does not address the further step “comprising the step of carrying out a transcoder and data rate adaptation function, switching said signaling connections and said traffic channel connections for an uplink transmission direction from said communications terminal to said radio subsystem taking place after said step of carrying out a transcoder and data rate adaptation function, and switching said signaling connections and said traffic channel connection for a downlink transmission direction from said radio subsystem to said communications terminal taking place before said step of carrying out the transcoder and data rate adaptation function in a respective said radio subsystem”; however, a transcoder and data rate adaptation function is taught by Friman as, in a mobile communication system, a transcoder is typically located at the MSC or may be a part of a base station controller BSC or base station BTS and carry out data adaptation function as frame

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synchronization for interfaces between different units or networks during uplink and downlink, for instance, between a GSM and a PSTN systems (see Friman, Figs. 1 & 2, and page 3, line 23 to page 5, line 19 for this issue). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Youssef's system with a known and available technique of further including a transcoder and data rate adaptation function as taught by Friman in order to clarify the necessary step of call connecting between different systems using a transcoder and data rate adaptation function for interfacing process during uplink, the switching of signaling connections and traffic channel connections for an uplink transmission direction must take place after the transcoding and data rate adaptation function, and the switching of signaling connections and traffic channel connections for an downlink transmission direction must take place before the transcoding and data rate adaptation function. It is obvious to realize that since the transcoder unit T is between a radio system A and terminals B, in an uplink transmission, from terminals B to a system A needs to go through transcoder T-- means B--T--A; therefore, the switching from B to A must occur after the T transcoding taking place, and the switching process must take place at A (to another MSC or another system) before carrying out the T transcoding in the downlink direction to the terminal B.

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Response to Arguments

5. Applicant's arguments filed on 11/03/03 have been fully considered but they are not persuasive.

Applicants basically argues that Youssefzadeh does not teach or suggest that the signaling connections only are switched through (or via) the radio transmission unit, namely the satellite, as cited in claims 1 and 10 and pointed out to Figure 1, which is just an illustration of a traditional hybrid cellular/satellite network (col. 2/lines 30-42) which could also be a base or part of Youssefzadeh's invention. However, Youssefzadeh does point out clearly that in Figure 2, not in Figure 1, unit 42 is used for link 44, which is signaling connections as cited. Then, the applicants argues that the radio transmission unit (satellite unit 42) is not used for transmission between radio subsystem and the MSC by pointing out to Figure 2, but in fact, in Figure 1, this concern is already addressed. Thus, the applicants mistakenly point out to incorrect figures in a crisscross manner in order to support their theory that this technique is not shown or done by Youssefzadeh. The Applicants admit that Friman discloses the step of carrying out and a data rate adaptation, but then applicants question that the above feature is not done by Friman; however, it is already disclosed by Youssefzadeh above. Otherwise, the Friman reference should reads on this entire application instead. The Examiner believes that each and every limitation are disclosed by Youssefzadeh and Friman as disclosed in the previous Office Action and as discussed in this Final Office Action. Therefore, the Examiner disagrees with the Applicants and stands with this Final Office Action rejection.

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Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for Technology Center 2600 only)

*Hand-delivered responses should be brought to Crystal Park II,
2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).*


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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Thuan Nguyen whose telephone number is (703) 308-5860. The examiner can normally be reached on Monday-Friday from 9:30 AM to 7:00 PM, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (703) 305-4385.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is **(703) 306-0377**.

Tony T. Nguyen
Art Unit 2685
January 19, 2004



TONY T. NGUYEN
Art Unit 2685
January 19, 2004